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ABSTRACT

Configuration, strategy, and leadership style in five Brazilian universities are examined. Though research tends to focus on the university as a professional bureaucracy, it is demonstrated that other configurations are also applicable. The link between configuration and strategy making is traced, with insights into how strategies are formed in universities provided. Ways in which leaders set strategic direction are examined. Topics of discussion are: (1) decision making and structure in higher education (bureaucracy, collegiality, political model, organized anarchy, mixed models, and models of governance in higher education); (2) the business literature; (3) configuration: a framework for analysis; (4) strategy making in the university; (5) Brazil's universities; (6) university configurations (organized anarchy, the political arena, the adhocracy, the missionary organization, and the machine bureaucracy); (7) strategy making (disconnected academic strategy, emergent strategy, umbrellas and ideology, and planned and unrealized strategy); and (8) leadership style and strategy. Administrators may focus on elements other than academic strategy. Academic strategy corresponds to university outputs (research and teaching) and inputs (staff and students). Physical strategy is related to the various support components on which the university relies to get its work done (physical facilities, fund raising, and support staff). They are usually centralized functions and are more amenable to central intervention. A third area concerns the governance of the university which can facilitate the work of the university or perhaps impede it. Contains 86 references. (SM)

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Strategy, Structure and Style in Brazilian Universities

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This paper was presented at the annual meeting of the Association for the Study of Higher Education held at the Ritz-Carlton, Buckhead in Atlanta, Georgia, November 2-5, 1989. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

Introduction

This paper examines configuration, strategy, and leadership style in five Brazilian universities. Research has tended to focuss on the university as a professional bureaucracy. This study demonstrates that other configurations are also applicable. It traces the link between configuration and strategy making, and provides insights into how strategies are formed in universities. Finally, it examines how leaders set strategic direction.

It is impossible, within the confines of this paper, to do justice to the complexity of the Brazilian university system. It is, however, important to note that all universities rely on public funding and are restricted by government legislation, even private institutions. It is difficult, therefore, to understand fully internal events, without reference to the larger environment. By focussing on internal events, this paper is inherently incomplete in its explanations. Nevertheless, it offers insight into the links between configuration, strategy and leadership style.

Higher education in Brazil began in 1808 with the creation of two medical schools. The first institution to be called a "university" was the University of Rio de Janeiro in 1920. The current system dates from 1968, when rapid economic growth prompted a period of scientific and technological development, and a demand for the expansion of undergraduate and graduate education. There are over sixty universities, of which thirty are controlled by the federal government, ten by state governments; the remainder are private and, predominantly, religious institutions.

The remainder of this paper is structured as follows. The next section describes the theory that pertains to university structure and decision making. It argues that, although usually classified as professional

bureaucracies, universities can adopt other configurations. The following section introduces the five Brazilian universities. They are subsequently categorized in terms of their particular configuration. The final sections clarify the link between configuration, strategy and leadership style.

Decision Making and Structure in Higher Education

The research that has been carried out in higher education has, for the most part, built on four basic models: the bureaucracy; collegiality; the political model; the organized anarchy, which are described below.

Bureaucracy

The increases in size and complexity of many academic institutions during the fifties and sixties drew attention to the need for administrative structures to provide coordination and direction. Stroup (1966) pointed out that certain characteristics of Weber's bureaucracy were to be found in universities: the division of labour; the standardization of activities; the use of impersonal criteria, an administrative hierarchy: and formal rules and regulations (see, Baldridge, 1971; Blau, 1973). It was soon pointed out, however, that other bureaucratic features were absent: direct supervision of work; detailed operating rules; centralization (Platt & Parsons, 1968; Baldridge, 1971; Blau, 1973). Blau drew attention to inherent contradictions between the rigidity and discipline inherent in a bureaucracy and the flexibility and innovation required of scholarship; and in authority based on position and authority based on expertise and knowledge.

The idea that a professional form of the traditional bureaucracy might exist started to attract attention. Blau (1973) argued that bureaucratic and academic features coexisted in universities. Satow (1975) pointed to a gap in Weber's theory of bureaucracy that could accommodate the professional

organization. Obedience in the traditional bureaucracy is governed by formal rules and laws, and legitimated by rational-legal authority. In the professional organization, it is secured by commitment to an absolute value -- through ideology and norms. Allegiance is to the profession or discipline, rather than the organization; and adherence to professional values binds members, rather than organizational goals. Thus, coordination is achieved by the standardization of skills; and commitment by socialization in professional norms, both of which are acquired through professional training (Schein, 1968; Van Maanen & Schein, 1979; Van Maanen, 1983). This type of organization differs markedly from the traditional bureaucracy in that power and responsibility are decentralized.

> It hires duly trained and indoctrinated specialists -- professionals -- for the operating core, and then gives them considerable control over their work (Minzberg, 1988: 639).

The existence of professional values, which guide, motivate, and control members, makes this "self government" possible.

Despite decentralization, bureaucratic features are to be found in this professional bureaucracy (Mintzberg, 1979). First, there is standardization of the skills, procedures and programs. People are categorized and placed into programs or "pigeon holes" (Mintzberg, 1979), within which a standardized set of procedures are invoked. For example, Law students take a relatively predetermined program of courses; while Medical students will face different, but equally standardized, options. While these procedures and pigeon holes are regulated by the profession (and not the organization, as in a traditional bureaucracy) they, nevertheless, remain standardardized, formalized and difficult to change -- in other words, bureaucratic.

A second bureaucratic characteristic occurs because subunits carry out

an autonomous, loosely coupled (Weick, 1976) existence, and have to be hooked up to the larger organization. As anyone who has worked in a university is only too aware, democracy and decentralization requires a considerable amount of hierarchy, due process and procedures that are extensive, pervasive and highly standardized. Approval routes for new programs, promotion, tenure, and recruitment are standardized, predetermined, and run the length of the hierarchy. The third way in which the bureaucratic overlays the academic concerns the support staff. While the professional side of the university may be characterized by autonomy and academic freedom, the support staff are, typically, arranged in a traditional, top down bureaucracy (Corson, 1960; Eztioni, 1964; Holdaway et al, 1975; Mintzberg, 1979).

Collegiality

The idea of collegiality is linked to two main sources. First, it stems from professional authority, based on competence rather than position, leading to a flat hierarchy (Baldridge, 1971; Childers, 1981). Second, there is the idea of a community of scholars (Goodman, 1962), where decisions are a matter of consensus (Millett, 1962). Collegiality has thus been viewed as both a decentralized structure and a consensual decision process.

The former phenomenon has been studied by Beyer and collegues (Lodahl & Gordon, 1972, 1973; Beyer & Lodahl, 1976; Beyer, 1982). It has focussed on establishing whether university departments are collegial or bureaucratic, which are seen as mutually exclusive terms. Collegiality is defined as decentralization within the subunit i.e. a high degree of influence by faculty members over decision making; and bureaucracy as centralization -- a low degree of faculty influence, compared with the department head. The authors also study what they argue is a second dimension -- decentralization

vs centralization -- subunit autonomy vis-a-vis the central administration.

Thus, a university department can operate in a centralized system, under an influential central administration, or in a decentralized system, in the event of subunit autonomy. Decision making within the subunit can be collegial, with influential faculty, or bureaucratic, with a strong department head. The use of these two continua was jusified on the basis that decentralization can exist without collegiality, as in Germany where strong professors exercised total control over their departments. The use of the two dimensions is, however, misleading since the authors are not measuring two different phenonema but one (Hardy, forthcoming, a). They are, in effect, examining different degrees of decentralization -- to the level of either department head or faculty members. Nor does the research examine either collegiality or bureaucracy as a decision making process. The work focusses on formal structure, in terms of which levels exert influence over decision outcomes, and not how that influence was exerted.

There has been relatively little work explicitly on decision making by consensus. This model is implicit in Clark's work on saga (1970, 1971, 1972), which illustrates institutions in which members' loyalty and commitment binds them to organizational goals. As a result, one would expect consensus decision making. Such a situation is characterized by: shared responsibility and premises about organizational purpose; alternatives that are generated by different specializations; and decisions that occur as a result of consensus building processes to which participants are willing to contribute the necessary time, effort, and information (Chaffee, 1983). It is also implicit in Satow's (1975) work, where allegiance to professional values represents an ideology that integrates members (see Dill, 1982).

Recent work on culture and ideology, and symbolic management also indirectly touches on the nature of consenusal decision making (for example, Dill, 1982; Chaffee, 1984; Masland, 1985; Tierney 1987, 1988, 1989; Chaffee & Tierney, 1988; Gumport, 1988). Writers have emphasized the role of senior managers in nurturing culture, and the importance of these actions to an effective organization. They have argued that culture must be managed in order to nurture the university community, protect it from threats, and enhance effectiveness (for example, Dill, 1982). Clearly, if administrators adopt a symbolic role and manage meaning for others, they can foster commitment and consensus, by creating allegiance to institutional values.

The Political Model

Baldridge (1971) was one writer who did consider decision making by consensus, but only to dismiss it for being unrealistic and utopian, and to replace it with a political model. Hill & French (1967), Bucher (1970) and Darkenwald (1971), started to examine political dimensions of university life, but it was left to Baldridge to fully explicate the political model in the context of university administration. Using theories of conflict, community power and interest groups, as well as his own research, he developed a framework for political analysis. Baldridge claimed that his model included consensual and bureaucratic processes, but it presented an intensely political view of university life (Baldridge et al, 1977, 1978).

> We see neither the rigid formal aspects of bureaucracy nor the calm, consensus-directed elements of an academic collegium. On the contrary, if student riots cripple the campus, if professors form unions and strike, if administrators defend their traditional positions, and if external interest groups and irate governors invade the academic halls, all these acts must be seen as political (Baldridge, 1971: 19-20).

Other writers tackled the role of power and politics in universities.

Peffer and collegues conducted a series of studies on the relationship between power and decision outcomes. For example, they argued that a department's share of the budget was predicted more accurately by their power (as defined by other department heads and measured by the extent of their representation on committees) rather than size or reputation (Salancik & Pfeffer, 1974); that the ability to obtain outside grants influenced the ability to obtain internal funding (Pfeffer & Salancik, 1974); that the relationship between the panel members who judged grant applications and grant recipients affected grant allocations (Pfeffer et al, 1976); and that the turnover of department heads was a political process, in situations where the underlying paradigm of the field was not well developed (Pfeffer & Moore, 1980). In other words, it was argued that, first, resource allocation was best explained by power, particularly the ability to attract highly valued external resources and, second, where there was no clear consensus in an academic field, decisions were resolved by politics. Subsequent research has extended this work (for example, Hackman, 1985; Welsh & Slusher, 1986).

This work adopts a different methodology to Baldridge. It is highly quantitative and focusses on structural factors. Certain measurable variables, which may indicate the possession of power sources, are found to be related to decision outcomes. It suggests that power plays a role in decision making, but says little about the process whereby the independent variables affected the dependent variable. It does not show how power was mobilized, and implies that the mere possession of power sources is sufficient to influence decisions.

The Organized Anarchy

The garbage can model, in which universities are viewed as organized

anarchies (Cohen & March, 1974; March & Olsen, 1976) is different from both the bureaucratic and political approaches since it assumes that behaviour is nonpurposeful. It argues that there exists ambiguity of intention and understanding. Events in the organized anarchy are not dominated by intention; instead decisions are made by default or by accident (also see Chaffee, 1983a). Problems exist all the time and are not necessarily resolved by choice. Solutions are answers actively looking for questions. Choice opportunities occur when the organization is expected to make a decision, and those decisions are often made by oversight and flight. Participants come and go. Issues often have a low salience and the total system has high inertia. Processes are subject to overload and information bases are weak. This situation arises when there is goal ambiguity, problematic technology, and fluid participation (March & Olsen, 1976). Other conditions were added by Baldridge et al (1978) -- client service, a high degree of professionalism and environmental vulnerability.

The authors recommend a number of strategies for managing the organized anarchy, including: the public solicitation of consensus; the management of agenda; the expending of time, energy and persistence since they are scarce resources; the collection of information; the facilitation of opposition parties, which sounds much like cooptation; overloading the system; providing garbage cans in which to dump issues (for example, creating a committee to deflect attention); managing unobtrusively; selectively interpreting history; writing minutes long after meetings when people have forgotten what was said.

One might assume, however, that the true organized anarchy is not manageable. As Lutz (1982) points out: when Padgett (1980) talks about managing the organized anarchy, he is no longer talking about the garbage

can. The above recommendations are political -- the authors effectively suggest that presidents mobilize the available power sources to influence decisions. Such action is purposeful, directed, and focussed. If one person does it, even if he or she is the president, one might expect others to do the same. In which case, participation will not be fluid; and individual goals will become clear. Similarly, the existence of garbage can decision making has been contested in the context of important decisions and scarce organizational resources (Hardy et al, 1983; Musselin, 1987). In fact, the proponents of this model point out that slack resources are a necessary condition (Cohen & March, 1974). In summary, it would seem useful to conceive of the organized anarchy as a structural type that approximates an extreme form of the professional bureaucracy, in which the garbage can is the prevalent influence because the structure is too complex for actors to influence events with any consistency. Once issues become salient or the system is successfully influenced, however, it becomes a political arena as actors mobilize power resources to influence events. Thus, the organized anarchy, once mobilized, blurs with the political model.

Mixed Models

Subsequent research has developed the idea of "mixed models", following Allison (1971). Baldridge's later work also set the scene for this new focus, as did the concept of professional bureaucracy, in which professional and bureaucratic features were combined (also see Helsabeck, 1973). The bureaucratic/academic dimensions continued to attract attention (Kort Krieger & Schmidt, 1982; Bresser, 1984; Hendrickson & Bartkovich, 1986) but, more commonly, the literature has sought a mix of bureaucratic, collegial, political and, sometimes, the garbage can (for example, Childers, 1981; Davis

& Morgan, 1982; Ellstrom, 1983; Taylor, 1983; Bess, 1988; Birnbaum, 1988, 1989; Bensimon, 1989; Newman, 1989).

Models of Governance in Higher Education

We can, then, summarize the existing work in higher education in the following way. The professional bureaucracy appears to be the basic building block used to describe universities (see Hardy et al, 1983). It is, however, a structural component. It describes the formal organizational arrangements and says more about what the university looks like than what it does.

The decision making processes in the professional bureaucracy are highly complex. Very few decisions are taken by administrative fiat -- by senior administrators alone (see Hardy et al, 1983). The decisions that do fall under this rubric tend to include those that pertain to the support staff and those that involve the financial investments of the institution. In the case of the latter, senior administrators are often influenced by the financial stakeholders in the institution -- business, donors and, in the case of public institutions, the government. Many decisions will be taken by professors in the context of individual judgements concerning research and teaching. They decide how to conduct their classes and their research. These decisions are often influenced by professional norms; the consumers of the research and teaching services; and granting agencies. The majority of decisions in the professional bureaucracy -- and certainly the more global decisions -- fall under the category of collective choice, in which administrators and professors come together in the complex committee systems that typify most universities. It is these decisions that, typically, are described as collegial; political; garbage can; rational (Hardy et al, 1983).

The tendency has been to combine rational and bureaucratic processes

(for example, Birnbaum, 1988). There are, however, significant differences between them (Chaffee, 1983a, b; Hardy, 1988a). In the latter, routines and procedures are used to resolve decisions. The focus is on efficiency; goals may relate more to means than ends; the search for alternatives is limited and routine, criteria are historical; and the process is largely predictable (Chaffee, 1983a). Rational decision making, on the other hand, is more concerned with optimal effectiveness. Goals are clear; a number of alternatives are considered; information is procured and analyzed; criteria are clearly explicated; the optimal outcome is selected; and resources are channelled towards it (Chaffee, 1983b). While limits to cognition, information, and time clearly bound rationality (Simon, 1955), it is not the same as bureaucratic decision making.

Writers have often equated rationality and efficiency because of Weber's model of rational/legal authority. It has been argued, however, that Weber disassociated the concept of administrative rationality from efficiency (Gerth & Wright Mills, 1946; Weiss, 1983). The former characterizes:

> [a situation] where men (on the basis of scientific knowledge and rational thinking) deliberately try to determine and shape the structure of such organizations according to their values and goals. Such rational organizations, although they often aim at the increase of organizational efficiency do not necessarily achieve this goal. This rational determination not to let things go by themselves (the effort towards conscious control of organizational evolution) is not necessarily accompanied by the existence of strict procedural rules (Mouzelis, 1967: 52-3).

We can, then, differentiate between the bureaucratic and the rational-analytic university. The former is geared towards efficiency; based on functional or material rationality (Weiss, 1983); and largely ignores the purpose and meaning of behaviour (Mouzelis, 1967). The latter is based on substantive or formal rationality, in which experts apply intellectually

analyzable rules (Weiss, 1983); and where the act of thought reveals intelligent insight into the interrelations of events (Mouzelis, 1967). It occurs when goals and technology are clear (Ellstrom, 1983). Quinn & Kimberly (1984) differentiate between the hierarchical organization geared towards stability and control, where compliance is obtained through rules, motivation stems from security, and leadership is conservative; and the rational culture in which compliance is achieved through goal setting, motivation rests on competence, and leaders are directive. Elements of the rational culture have been found in universities (Chaffee & Tierney, 1988).

The rational, or technocratic, organization relies on rational analysis by the experts. In universities, the experts are the professors (Hardy et al, 1983) and, so, the technocracy would, typically, be associated with the decentralized power characteristic of a professional bureaucracy. The bureaucratic model, on the other hand, is more akin to the traditional, centralized bureaucracy. Its emphasis on control and efficiency is associated with a top-down approach to decision making in which standardized, bureaucratic processes and procedures, developed by the central administration, are applied in a standardized fashion to all problems. This separation of the rational professional bureaucracy and centralized bureaucracy helps pave the way for a broader look at universities.

The Business Literature

The centralized bureaucracy has been called the machine bureaucracy (Mintzberg, 1979). It is the configuration commonly associated with many large, functional manufacturing firms, where decisions are taken centrally. Writers have argued that this form does not apply to research universities because professors are too powerful and the research component is difficult

for administrators to measure and evaluate. Institutions which place less emphasis on research and more on teaching, on the other hand, tend towards more centralization since professors possess less power and their work is more amenable to central control (Blau, 1973; Hendrickson & Bartkovich, 1986). Thus, these universities may resemble the machine bureaucracy.

If the machine bureaucracy is applicable to universities, why not other configurations more commonly associated with business enterprises? The most basic form has been called the simple structure (Mintzberg, 1979). It refers to a young, small enterprise in which the entrepreneur holds all the power, makes most of the decisions, and determines strategy. It is characterized by a lack of formal structure and division of labour. This configuration may characterize small, embryonic institutions although, in most cases, one would not expect to find it because the nature of academic work requires the hiring of professionals, the development of pigeon holes, and bureaucracy.

A variation of this form may be more applicable. Many universities have been characterized by a strong leader (for example, Clark, 1970; Smelser, 1973). Decisions are taken by the leader, cutting out much of the complex committee structure and increasing the realm of administrative fiat. A bureaucracy exists, but is overlaid with a charismatic form of leadership, where self appointed leaders are followed by those who believe them to possess extraordinary qualities (Conger & Kanungo, 1987, 1988).

The adhocracy is the only configuration capable of dealing with highly sophisticated technical innovation, and which has a developmental culture (Quinn & Kimberley, 1984; Zammuto & Krakower, 1989). The professional bureaucracy is aimed at applying standardized programs within fairly stable pigeon holes, in order to perfect procedures and programs (Mintzberg, 1979).

These organizations are highly effective at professional innovation -- updating the field within existing disciplinary fields (Savenije & Van Rosmalen, 1988). The adhocracy is directed towards entrepreneurial innovation (Savenije & Van Rosmalen, 1988) -- creating new pigeon holes (Mintzberg, 1979). While professionals in the professional bureaucracy are dealing with familiar problems, those in the adhocracy have to constantly deal with new problems, which often cut across disciplines and specialities. They are, therefore, drawn into multidisciplinary teams in which their resources of expertise are pooled together. Universities may resemble the adhocracy if they are geared towards entrepreneurial innovation -- new programs, new subjects, new ways of studying traditional subjects.

The divisionalized form, as developed in the business literature, relates to the conglomerate or holding company which consists of a number of different, autonomous divisions. There are two instances in which the divisionalized form may by found in university settings. First, in the event of the large "multiversity" spread out over a large number of interlinked but independent campuses, commonly found in the States. The heads of each campus may have considerable autonomy, with only minimal links to the central institution. A second example occurs in institutions where deans of faculties and schools are highly independent "divisional managers".

Configuration: A Framework for Analysis

In summary, it can be argued that, like business organizations, universities might be expected to resemble one of a number of configurations (see table 1). The simple structure would be characterized by centralized power. Goals would be set by the entrepreneur and would most likely revolve around growth. Control would be ensured by the leader's power, and change

Table 1 (part 1).

University Configurations

	Power:	Goals:	Means:
Simple Structure	centralized/ leader	gowth in size	entrepreneurial vision
Charismatic Bureaucracy	centralized/ leader	achievement/ turnaround	entrepreneurial vision/ideology
Professional Bureaucracy	decentralized	professional development	professional norms
* Missionary	dispersed/ shared	excellence	common interest
* Political	decentralized/ interest groups	resource acquisition	self interest
* Garbage Can	dispersed/ ineffective	ambiguous	disinterest
* Technocratic	decentralized/ technocrats	optimization	analysis
Machine Bureaucracy	centralized/ administration	efficiency	control
Adhocracy	decentralized/ experts	innovation	problem solving
Divisional Form	decentralized/ divisional managers	growth in scope	diversification

Table 1 (part 2).

University Configurations

	Control via:	Change:	Politics:
Simple Structure	power of entrepreneur	from leader	yes, butleader can suppress
Charismatic Bureaucracy	charisma	from leader	no, leader's vision shared
Professional Bureaucracy	socialization	from professionals	depends
* Missionary	shared norms	from consensus	no, common vision
* Political	use of power	from politics	yes, between interest groups
* Garbage Can	none	by chance	possibly, but has no effect
* Technocratic	substantive rationality	from analysis	yes, against technocrats
Machine Bureaucracy	traditional authority	from central planning	possibly, against centre
Adhocracy	resources	experts	yes, for resources
Divisional Form	central policies	from divisional managers	yes, between divisions & centre

would emanate from the entrepreneurial vision. Political activity may occur, but would most likely be suppressed by the leader's power. The charismatic bureaucracy occurs when a leader takes control of the organization, even though the formal bureaucratic structure remains. Vision is also important and, since the organization is already large, would tend to be achievement oriented -- leaving one's mark -- or in the case of a crisis -- turnaround. The leader is responsible for change. He or she controls, not by exercising power, but by charisma. Thus, politics is unlikely since other members share the vision and the ideology created by the leader.

The professional bureaucracy is characterized by decentralized power. Change is initiated by the professionals towards the goal of professional development. Professional norms will play a large part in development, and control is achieved by the socialization of the professionals during their training. Politics will depend on the type of professional bureaucracy. Decisions in the missionary are shaped by conceptions of the common interest. Decision making is collegial, power is decentralized and shared. Politics is, thus, unlikely. The goal or mission usually revolves around some concept of excellence. Ideology and commitment to the mission act as control mechanisms. Radical change occurs only by consensus. In the political professional bureaucracy, politics (defined here as the use of power to produce outcomes consonant with self interest) is prevalent. While the organization is still motivated by professional development, individuals are also concerned with self interest. Power is decentralized and distributed among the various interest groups, which use it to gain further resources. Control is exercised by the use of power, and change brought about by political activity. The garbage can has no specific goals; power is

dispersed but has no impact, either because members are either too disinterested to use it, or because the system is so unmanageable. If change does occur, it is almost by default. The technocratic professional bureaucracy is dominated by rational analysis with the intent of optimizing decisions. The technocrats in charge of these analyses, thus, have considerable power. Control is based on rational authority, and change emanates from rational analysis. Politics may occur against the technocrats.

The machine bureaucracy is more centralized than the technocracy, with power resting in the hands of central administrators, who try to exercise control through rules and regulations. Their aim is to achieve efficiency, which requires tight control of the professionals. Change is initiated from central planning directives, and politics may occur between the centre and the professors, if the latter has sufficient power. The adhocracy is geared towards innovation and power lies with the experts. The institution is characterized by problem solving on the part of all members. Central administrators exercise control over the initiatives of these experts through the resource allocation process. Politics may be an issue as different groups of experts compete for the resources. Finally, power in the divisional form lies with divisional managers. The structure is designed to increase the breadth and scope of the institution through diversification into different areas or locations. The centre attempts to control the divisional managers by setting policies and targets. Change within the divisions is, however, most likely to come from their managers. Political activity, typically, occurs between central and divisional managers.

Strategy Making in the University

Strategy is defined as a pattern in a stream of decisions (Mintzberg,

Table 2.

Types of Strategy

Planned strategy: is similar to the notion of deliberate strategy. It consists of precise intentions formulated and articulated by central leadership. It is backed up by formal controls and tends to occur in a predictable or controllable environment.

Entrepreneurial strategy: exists in the unarticulated vision of the leader. Strategies are relatively deliberate but, because they are unstated, the leader can change rapidly and so, strategies may emerge.

Ideological strategies: exist as a collective form of all actors. They are relatively difficult to change because of shared beliefs and control through socialization. They are also relatively deliberate -- in accordance with the ideology.

Umbrella strategies: are broad targets defined by the leadership, which allows other actors to decide how best to achieve them. Thus, the overall goal is deliberate but the path towards it emerges.

Process strategies: occur when the leadership controls process aspects such as hiring, committee membership, promotion. In other words, leaders hire, promote, staff committees, set terms of reference in such a way that their intended outcome is more likely to emerge.

Disconnected strategies: occur in different parts of the organization and have no relation to, or even contradict, any notion of "organizational" strategy. Disconnected strategies may be deliberated or emergent within in the individual unit. Any organizational strategy can only emerge, often by chance, if certain disconnected strategies provide an overall direction.

Consensus strategies: are negotiated between members, or are formed by mutual adjustment between them, but in the absence of central directives.

Imposed strategy: refers to the imposition of strategic directives on an organization by forces external to it.

Unrealized strategy: intended strategies that fail to materialize in the form of actions.

Adapted from Mintzberg & Waters (1985).

12972) or actions (Mintzberg & Waters, 1985) that have significant implications. For example, those that relate to the elaboration of the mission (products and services); inputs to the system (recruitment of students and professors); the means to perform the mission (physical facilities, financial support staff); and structure and governance (see Hardy et al, 1983). The first two areas are combined here under the category of academic strategy. This definition encompasses the concept of planned strategy, but also recognizes that strategies may emerge. The incorporation of this broader definition allows the identification of a number of different types of strategy, which are summarized in table 2.

Mintzberg has pointed out that different configurations tend to produce different strategies (1979). The remainder of this paper examines the concept of configuration in the five Brazilian universities, and the implications for strategy making.

The Universities[1]

Semi-structured interviews were carried out with central administrators, directors/deans, professors, students, and nonacademics, including members of the key committees. In total, 112 individuals were interviewed. Relevant documentation, such as reports, budgets, memos, statutes, and regulations was analyzed. The universities included private, federal and state institutions. Comparative case analysis was used to identify the similarities and differences between them. There is, unfortunately, insufficient space here to go in to detail about the methodology here, although it is discussed in more depth elsewhere (Hardy, forthcoming, b) and has been used in other university studies (Hardy, 19988b, forthcoming, c), as well as other settings (Hardy, 1989). More details on the universities are provided below.

The Federal University of Rio Grande do Sul

The Federal University of Rio Grande do Sul (UFRGS) is situated in Porto Alegre. It was created in 1934, integrating a collection of independent schools -- such as Medicine, Law, Engineering-- that had been established in the late 1800s. In 1987, it had twenty three faculties, over eighty departments, over two thousand professors and 17,000 students.

There were two parallel lines of authority (diagram 1). The functional/administrative hierarchy was headed by a central administration, consisting of a rector and vice rector appointed, as in all federal universities, by the President of Brazil. The rector appointed the five pro (assistant) rectors. Faculty directors (deans), like the rector, held their office for a four year, nonrenewable term. Thus, as at all federal universities, there was a complete turnover every four years of central adminsistrators and directors. The senior decision making body in this administrative channel was the University Council. It consisted of the rector and vice rector; directors; a representative for each of the three professorial ranks (full, associate and assistant); the president of each of the five academic chambers (described below); students made up one fifth of the membership; and three representatives from the local community. There were two councils in each of the faculties -- the faculty council and the congregation. The latter consisted of all full professors and two representatives of both assistant and associate professors. The faculty councils consisted of all department heads, two representatives from each of the three professorial ranks, and students. Department heads were elected by departmental members and students, and served for a maximum of two two-year terms. Departments with more than 15 professors had a smaller committee of professorial representatives for decision making purposes.

This administrative structure had no control over academic programs. They were the responsibility of a separate academic structure. Each program had its own curriculum committee, which consisted of members from the departments that contributed to it. It cut across vertical lines by involving members from different departments and faculties. So, for example, the program in Administration would include members from Administration, Economics, Mathematics, etc. The curriculum committee was responsible for curriculum changes, approving the teaching plans of the professors who taught in it, and coordinating the various departments that contributed to it. Members were elected by students and professors in the relevant departments for renewable four year terms. The head of the committee -- the coordinator -- was elected by the committee members, and also served a renewable four year term. The curriculum committees reported to one of five chambers, depending on the subject area. Each chamber consisted of the coordinators of the relevant curriculum committees, who elected the president for a renewable four year term. Each chamber was represented by its president and three other members on the Council for Teaching and Research, which had ultimate academic authority.

Theoretically, the administrative and academic channels came together at the level of the rector who presided over both the Council for Teaching and Research and the University Council, and the level of department, which supposedly initiated program changes. In practice, however, the two channel

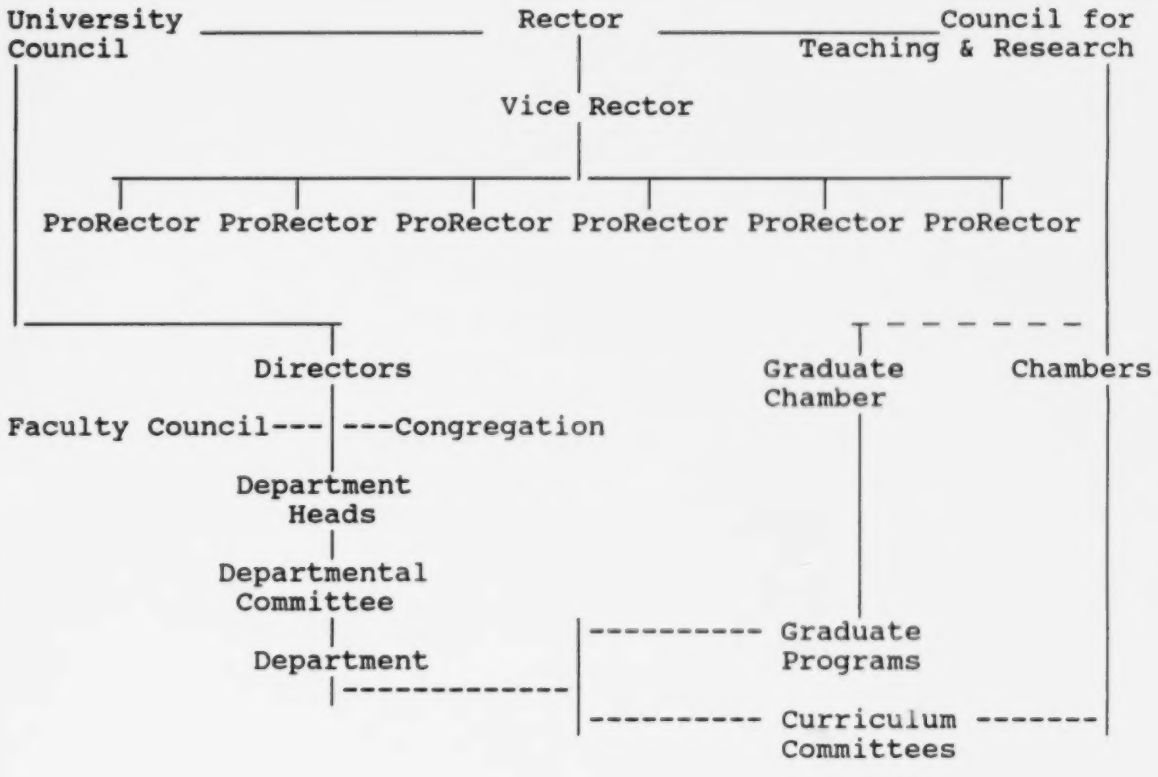
were completely separate, and the distribution of power lay with the academic channel. The rector had no power to impose decisions on either council, and the curriculum committees did not need the approval of the departments for academic changes. Members of the various academic committee could be reappointed indefinitely (administrative positions were held for a maximum of four years), and belong to more than one committee. So, for example, the head of a curriculum committee could also be president of a chamber, and a member of the Council for Teaching and Research and the University Council for an indefinite period (Braga, 1984; Fischer, 1984.)

While the academic channel held the balance of power over the administrative channel in relation to individual programs, as far as institutional policies were concerned, decision making responsibility was highly dispersed among numerous different committees. The result was the complete absence of any integrated academic strategy -- the system was simply too dispersed, decentralized and fragmented. The rector, while nominally head of both channels, lacked the formal power to impose decisions on either of the two central committees. He could have tried using informal power, but had chosen to avoid influencing academic strategy. Instead, he had chosen to focus on a strategy that revolved around the physical side of the university.

This strategy was encapsulated in the idea of the "cultural centre". University buildings were used for a variety of special events, seminars and workshops on a variety of subjects ranging from cultural and artistic shows to academic presentations and skill development courses. These events were made available, free of charge, to everyone in the local community during a two week period in the summer. The aim was to "bring the university to the people" and, in so doing enhance the credibility of the university which would, in the long term, pay off in more resources and support for the university. It has since served as a model for other universities in Brazil and South America. A second part of the strategy was the upgrading of physical buildings and facilities. The university had its own "inhouse" personnel and resources as a result of the recent construction of a new campus. These support functions, unlike academic matters, were directly under the control of the rector, who had reorganized them as soon as he had taken office. In so doing, he had created a flexible and simple structure, in which responsibilities were pooled in joint initiatives, rather than assigned to specific individuals. His next step had been the execution of some seventy goals, which represented specific projects at which all the university's resources were directed -- painting and renovating classrooms, acquiring computer equipment, etc. Many of these projects were carried out in the first year. They then evolved into administrative "waves", as one idea spun off into another. For example, the idea for cultural centre emerged out of an original idea to display collections in the university museum; an event organized for children became a regular workshop. The rector was able to play a key role in choosing and implementing the specific projects because of his control of the organization he had set up to carry them out, and because he had some budget flexibility in capital funding. Once they were carried out, procedures were routinized and the rector moved on to another project.

Diagram 1.

UFRGS: Organizational Structure



The Federal University of Bahia

The Federal University of Bahia (UFBA) was created in 1946, although its origins go back to the first medical school to be founded in Brazil, in 1808. It has 15,000 students, 2,000 faculty, 24 faculties 87 departments.

UFBA's organizational structure is illustrated in diagram 2. The central administration consisted of four superintendents who reported directly to the rector. Instead of having one pro rector responsible for a specific portfolio (as at UFRGS), responsibilities were divided between an assistant and advisor and, sometimes, a coordinator. The University Council consisted of the directors of the twenty four faculties, one representative of the Council for Teaching and Research, one student, but no professorial representatives. Each faculty had a congregation of full professors. The faculty council comprised only of department heads -- there was no professorial representation. Department heads were elected for two years, which could be renewed for a second two year term. There were no departmental committees.

Each program was administered by a curriculum committee to which members were elected by professors and students in the departments that contributed courses to it. They served two year terms, which could be renewed indefinitely. The head -- the coordinator -- was elected by committee members for a two year term, which was renewable for a second term. Above the curriculum committees were three chambers responsible for undergraduate, graduate, and extension studies. Matters were passed up from the curriculum committees to the chambers, but committee membership at the two levels was completely different. The three chambers were made up of the members of the Council for Teaching and Research (one member elected by each faculty), who were distributed arbitrarily among the chambers.

There were several key structural differences between the UFBA and UFRGS: there were no departmental committees at UFBA; the faculty council had no professorial representation; the University Council had no faculty representation and there was only one member from the Council of Teaching and Research, instead of five at UFRGS; the curriculum committees were not represented on the Council for Teaching and Research; and there were considerably more positions in the central administration. These differences had a number of implications for the decision making process. First, the administrative and academic hierarchies were not totally separate at UFBA, and the former had more power. The academic channel was not a continuous chain and the curriculum committees -- by virtue of being "floating" structures -- lacked the power of their counterparts at UFRGS, which were firmly interlocked into a clear hierarchical structure. Moreover, the academic channel had less representation on the senior administrative committee. Second, there was less faculty participation in academic decision making. Third, at the central level, the division of the pro rectors' positions into two or three posts, effectively weakened the control of the "pro rectors" and increased the power of the rector. Thus, UFBA's formal structure was somewhat more centralized than that of UFRGS.

Although this formal structure accorded him more influence, the rector had to deal with a number of different interest groups. UFBA is surrounded by powerful external interests. It is a major player in Bahia, and events

in the university have enormous implications for the state as a whole. Powerful local and federal politicians have high stakes in the appointment of the rector. Internal interest groups were also evident. There were three associations representing students, professors and nonacademic staff. Also active on campus, were a number of left wing political parties -- in particular the Worker's Party; the Brazilian Communist Party; and the Communist Party of Brazil.

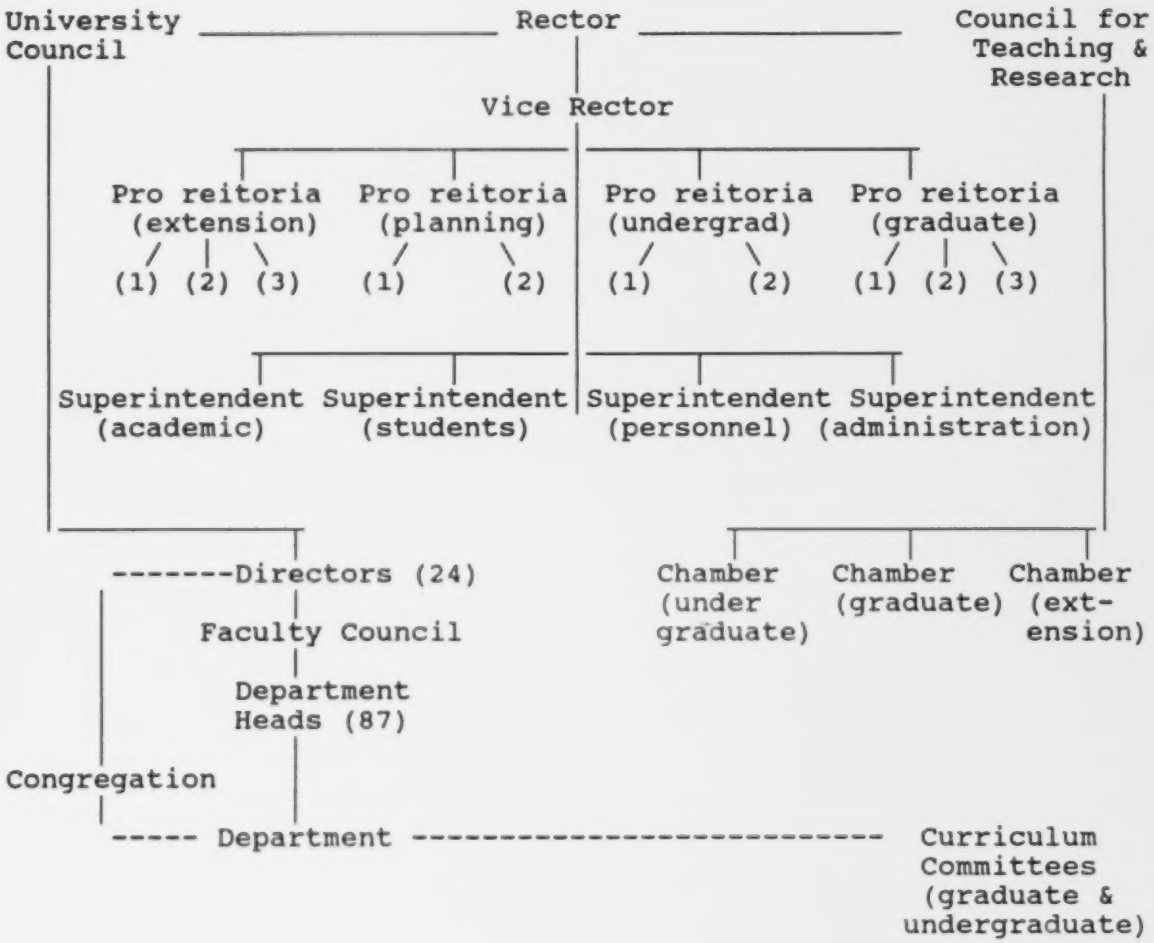
The rector declared his objective of introducing direct elections, involving professors, students and nonacdemic staff, for the purposes of choosing his successor. Brazilian universities, in general, have been demanding the right to choose their administrators in recent years; paralleling the demands for increased democracy in national politics. A number of universities have, as a result, introduced wider consultation in the selection of deans and rectors. Federal legislation concerning the appointment of rectors has not changed -- the ministry receives a list of six names, from which the President of the country chooses one. However, universities have some flexibility in compiling the list and, so, have used elections to choose the names of the candidates. Between 1985 and 1987, the government had respected the wishes of the universities by choosing the first (preferred) name on the list in all cases.

It was the rector who initiated the first move towards direct elections involving all three associations. In the spring of 1987, he issued on the back of every pay cheque, a demand for the university community to push for elections. It was before the associations had articulated any such demand, although they were in the process of considering it. The rector then convened the University Council to secure approval for such a move. A committee was established to decide election procedures. One issue that aroused considerable controversy was the issue of whether to vote for six names or one name. Under the first arrangement, people vote for six names who are rank ordered. Under the latter, voters select one name and the person with the most votes wins and becomes the first name; however, since the university must submit six names to the ministry, the remaining candidates complete the list in order of votes. In reality, then, both lists contain the six most favoured candidates in order of preference. There is, however, an important symbolic difference between the two procedures. The first results in a list of <u>six</u> individuals whom the community deems acceptable; the second produces the <u>single</u> individual whom the community wants as its rector. The associations were anxious to implement the second system in order to impress upon the government the democratic principle. The University Council was split on the issue and voted 12:13 against; the rector used his vote as a member to bring it to a tie, and his second vote as president to bring it to 13:12 in favour.

Having established the procedures, the election itself began. The associations and political parties coalesced around the various candidates and eventually a winner emerged with over forty percent of the vote. It was, at that point, unclear who the powerful state politicians supported. Clearly, whoever would be appointed would require strong political support. In January 1988, the new rector was announced -- the fifth name on the list -- who had only 3.6 per cent of the popular vote. He was apparently supported by a number of politicians who wielded significant power at both state and federal levels.

Diagram 2.

UFBA: Organizational Structure



(1) assistant
(2) advisor
(3) coordinator

The State University of Campinas

The State University of Campinas (UNICAMP), founded by the state government of Sao Paulo in 1965, is largely the product of one man -- Zeferino Vaz. In 1986, the university had 10,000 students, of whom more than 40 per cent were taking graduate programs. There were two thousand professors. In the twenty years following its creation, it has achieved a reputation of being one of the top two universities in the country.

The rector and vice rector were appointed by the governor of Sao Paulo. The rector appointed the pro rectors, who might be conceived of as product managers. They were introduced in 1986 to administer the specific areas of research, graduate teaching, undergraduate teaching, development and extension and community services, which cut across the faculties and institutes. The university council was the senior decision making body in the university. It consisted of the rector, vice rector, administrative coordinator and pro rectors; directors of the 18 faculties and institutes; 15 professorial representatives; 4 representatives of nonacademic staff; 6 members of the local community; student representation made up one fifth of the membership. Members were divided between the academic and administrative chambers. Reporting to the chamber of research and teaching were two committees for undergraduate and graduate teaching. They were presided by the relevant pro rector and consisted of graduate or undergraduate coordinators. Each faculty was headed by a director and a faculty council, consisting of department heads, program coordinators, and representatives of faculty, nonacademic staff, and students. Directors were appointed by the rector from a list of three names, drawn up by the faculty council based on consultation with the faculty and students. Department heads were appointed by the director based on similar consultion. Coordinators for graduate and undergraduate programs were elected. All positions were held for a maximum of four years (diagram 3).

Unicamp's development can be divided into three clearly defined strategic phases. The first phase was the creation of Unicamp, for which Zeferino Vaz was responsible. At that time, the university had no formal statutes and, so, Zeferino had considerable decision making freedom. His aim was to build a research university and his method was simple -- the aquisition of the best qualified researchers. He found them in Brazil, particularly those experiencing political problems in other universities following the advent of the military dictatorship. Other professors were lured back to Brazil from the USA and Europe. So by 1979, Zeferino Vaz had created a fully functioning research university, covering the pure, social and human sciences, which had already achieved the reputation of being one of the best in Brazil (Fracasso, 1984). There are a number of factors that contributed to that development. First of all, there was Zeferino Vaz himself. He took personal charge of the university's creation. He was also able to buffer it from the external environment and, in particular, the military dictatorship. His external political standing was such that the university encountered few problems from the government unlike, for example, the University of Brasilia, which was effectively closed down during the 1960s. Instead of a threat, military rule was transformed into an opportunity -- it represented a rich source of highly qualified professors who were experiencing political problems in other universities. It was also the time of the economic miracle in Brazil. Between 1968 and 1973, annual

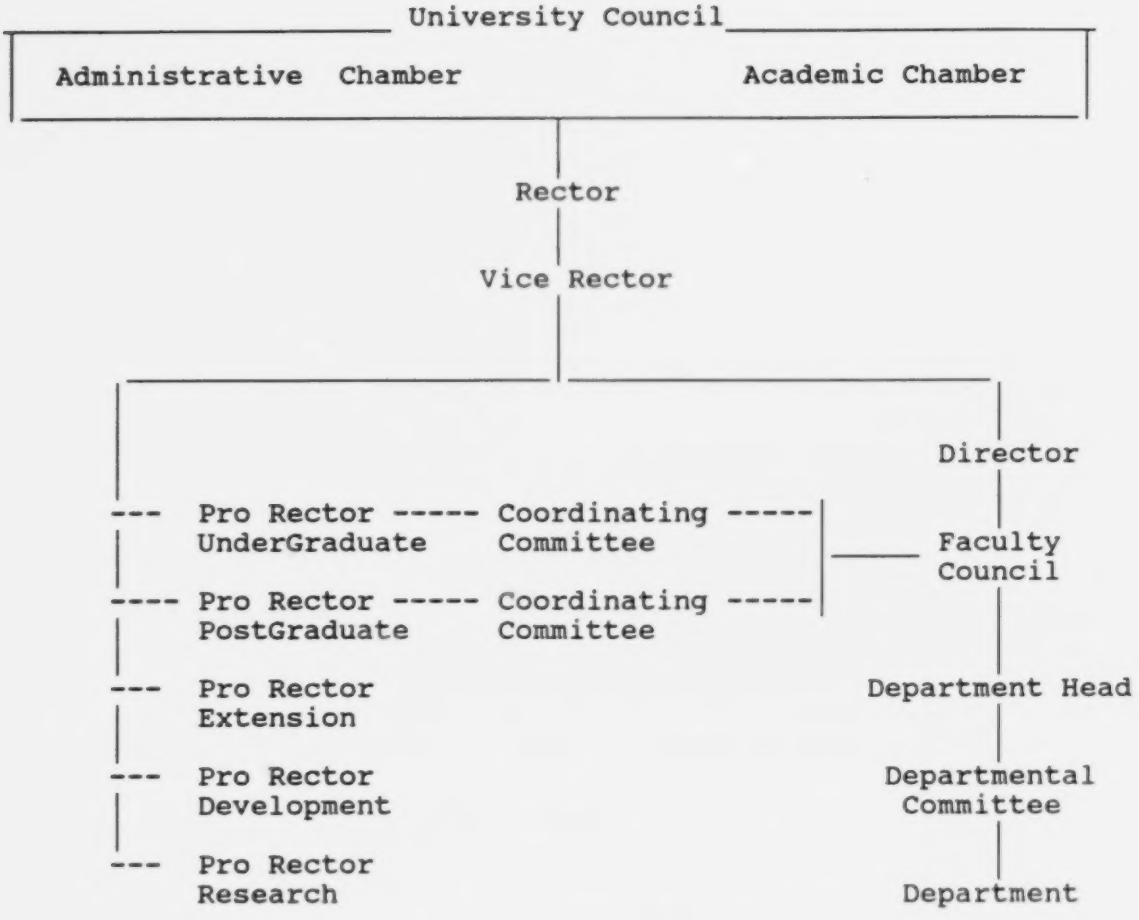
growth was 11 per cent. Unicamp is situated in and funded by the richest state in Brazil. Zeferino was, as a result, able to raise sufficient funds to attract professors and build some of the most lavish facilities in the country.

A period of crisis commenced in 1979, however, when a new state government was appointed. It was not a strong supporter of higher education and Zeferino's political influence began to dwindle. In 1981, his death placed the university in the position of having to deal with the departure of an absolute monarch, without the benefit of a formal constitution. The various internal factions immediately started to compete for the power vaccuum, created by Zeferino's death. The situation deteriorated into an internal crisis which impeded the daily functioning of the university. Increasing internal turmoil prompted the rector to request the governor's aid. The university had not yet formally approved its statutes which specified the roles of university administrators and provided legal protection from external constituencies. As a result, there was considerable ambiguity concerning the rights of the state government to intervene in university matters. In October 1981, there was an attempt by the government to replace eight directors with professors from other universities, and fire fourteen nonacademic staff. The response of the university community was, however, immediate and emphatic. A series of strikes, occupations and demonstrations by students and staff alike physically prevented the new directors from taking up their posts. Eventually, the attempt was withdrawn. During this period, everything was put on hold and the university, at best, stagnated and, at worst, regressed. New construction was abandoned and buildings stood half finished for several years. Some professors left, disillusioned with the political and economic situation. Those who remained found their energy was devoted to political, rather than academic, issues.

In 1982, a new rector was appointed and, the following year, a new state government elected. Relations between the university and the state immediately improved, which helped the new administration in its task of renewing and rejuvenating the university. It involved the formulation of a formal constitution, and regenerating the construction that had been put on hold. Most importantly, it meant recapturing Unicamp's original mission. There was once again a burst of activity in the form of new faculties. Many were spin offs from existing faculties, for example Economics separated from Philosophy; Electrical and Agricultural Engineering from Engineering. Physical Education was created as a totally new faculty. The creation of new programs started to die down during this period. It was, however, replaced by a new structure of centres, designed to house interdisciplinary activities that could not be accomplished by single departments. Centres were designed to be more flexible than the departmental structure. They could be created much more easily than a department. It required only a proposal from an interested researcher to be approved by the rector. Centres reported directly to the rector and received funding from him. At the same time the central administration started to direct resources towards clearly defined priorities. It had, for example, been decided that the university should not grow in size, but that certain areas would be developed, including: biotechnology, computerization, fine chemicals, energy and new materials. Development in the first area had already commenced with the creation of two large research centres.

Diagram 3.

Unicamp: Organizational Structure



The Catholic University of Rio de Janeiro

The Pontificia Universidade Catolica do Rio de Janeiro (PUCRJ) is the oldest private university in Brazil. It was founded in 1941 by two Jesuit priests. By 1986, it had developed a high level of research activity in its 23 departments, particularly in science and technology. There were over 8,000 students and 800 professors.

The structure at PUCRJ dated from 1967. Departments were clustered under three centres: of social sciences; humanities; and science and technology (see diagram 4). Each department had a committee consisting of elected members. Each centre had a council, which was chaired by the dean of the centre and made up of elected representatives from all departments. At the university level, the Council for Teaching and Research consisted of the deans and representatives from each centre. The University Council consisted of the deans, vice rectors and professorial representatives from each of the centres. Student representatives made up one fifth of the committee membership. Recently, the university introduced representation for nonacademic staff, and university level committees had two such representatives. Students were obliged to take courses from different departments and centres. One coordinator existed at all levels (i.e. department, centre and university) to coordinate undergraduate and graduate programs. They acted as staff personnel in that they were responsible for administering policies decided in the various committees and could not make any changes in courses, curricula, or policy. The coordination of programs across departments and faculties was not, then, controlled by curriculum committees but by the centre councils and departmental committees and, if necessary, by the Council for Teaching and Research.

PUCRJ had a well defined, clearly articulated strategy. The primary component of this strategy was to be a high quality research institution. There was also a commitment to maintain existing fields, rather than branch off into new ones -- the idea of "doing better what we do now". The second component of the strategy was excellence in teaching and, in particular, the a broadly based education for students, in which catholic values were manifested. An education which included exposure to the humanities and social sciences, rather than simply a professional training, was considered essential to prepare students to fulfill a useful role in society. The catholic tradition of the university underpinned the strategy, rather than playing a highly visible role. The university was considered relatively liberal (and sometimes too liberal) by the catholic community, and most of the administrators, excluding the rector, were laypersons.

This strategy can be traced back to the founding of the institution and the role that individual Jesuit priests played in its development. They instituted the basic values of learning and teaching. Before the 1960s, however, PUCRJ could not be described as an integrated university, much less a research institution. It was three highly independent schools which focussed on teaching -- Law, Philosophy, and Engineering. The first area to develop was Physics under the leadership of a Jesuit priest who had started a small research group in the 1950s. During this period, the government had funded the Institute of Physics and Mathematics, and made major investments in the Engineering School with the installation of the

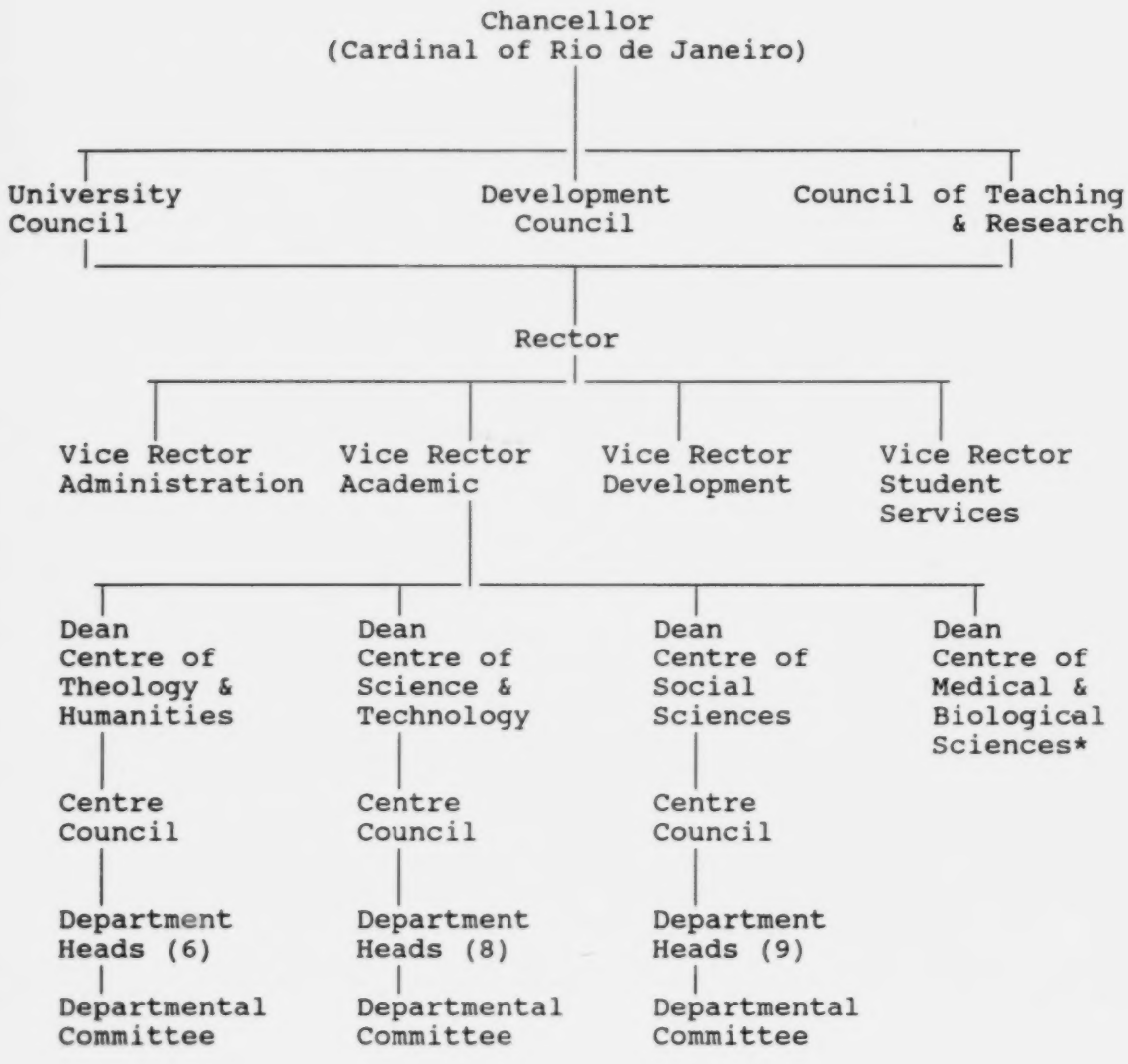
country's first university computing centre in 1959/60. It was the purchase of this new computer that provided the impetus for some major changes. The old valve technology, on which it was based, had to be operated continuously. Consequently, PUCRJ changed from being a part time institution, with the emphasis on evening classes, to a full time university. In addition, the acquisition of the new technology prompted major developments in the area of Physics. In 1959, the first full time professor was hired and, little by little, research developed in Physics and between Physics and Engineering. In 1963, the second masters program in Electrical Engineering in Brazil was started, and the following year the first Brazilian masters program in Physics was initiated. In 1965, the first Masters thesis was completed, the holder of which moved on to Cambridge for his doctorate, and the government started funding the newly formed Graduate School of Science and Engineering. In the beginning of the sixties, the research capability was, however, still small and primarily confined to a small group in Physics. The military regime changed that situation, as professors fired from federal universities for political reasons came to PUCRJ. PUCRJ also acquired physicists and engineers from the nearby engineering institute run by the army, as researchers tried to avoid active service.

The next initiative came with the change in structure, which parallelled the structural reforms in federal universities at the end of the 1960s. The new structure, with its emphasis on centres, changed the independent schools into an integrated university. The decision to have integrated centres stemmed from the experience of many of the professors who had studied in the US and other countries. The Jesuit tradition emphasized such travelling, and many individuals had studied in the US. As a result, the change was relatively easy to effect since the experience of the professors predisposed them to the new format. Another factor that undoubtedly helped the smooth passage of the change was the small size of the institution at that time -- no more than 300 or 400 professors. From this new structure centres came the integrated approach to students' education and the continued development of research capability. Science and engineering continued to be the university's flagship. Developments also occurred in the other two centres, largely as the result of the research initiatives of particular individuals, who were often Jesuit priests. For example, PUCRJ started the first Brazilian graduate programs in sociology, psychology, and education.

In summary, PUCRJ's strategy is the product of a mixture of factors. First, the underlying values transferred from the Jesuit tradition can be clearly seen. Second, the role of key researchers, often Jesuits, was particularly important in developing individual research strategies. Third, innovative actions such the purchase of the computer, the discovery of new financing arrangements, and the change in structure facilitated the research development. Fourth, the role of government funding was instrumental in developing PUCRJ's emphasis on science and technology. Finally, the fact that PUCRJ was one of the first universities to adopt the research route enabled it to "corner the market". PUCRJ established access to funding agencies at an early stage and, having secured the funds, was then able to engage in more research, which enabled it to secure more money and so on. Similarly, PUCRJ has been able recruit research professors who attract other researchers. It was then, by virtue of being one of the first research-oriented universities, easy to perpetuate that strategy.

Diagram 4.

PUCRJ: Organizational Structure



* This centre is administered completely separately from the university.

The Catholic University of Rio Grande do Sul

The Pontificia Universidade Catolica do Rio Grande do Sul (PUCRS), in Porto Alegre, dates from 1948 when the faculties of Philosophy, Law Economics, and Social Services received the status of university. The university is run by Maristas, a brotherhood which first arrived in Brazil at the turn of the century. In 1985, there were 17 faculties, over 20,000 undergraduates, 1,100 graduate students, and 1,900 professors.

The university is administered by a board of trustees, representing the religious community of the Maristas. It has responsibility for the ultimate approval of the creation or closure of programs and faculties, changes in the statutes, and the budget. The rector is appointed by the chancellor for a three year renewable term. The tendency was towards long term tenure -- the current rector had served nine years; his predecessor for 24 years. The central administration consisted of the rector, vice rector, and the pro rectors, who were appointed by the rector. The three central decision making bodies were: the Council of Teaching and Research, which consisted of all directors, the rector, vice rector, pro rectors, and one student; the University Council, which had the same membership; and the Council of Curators, which was responsible for the budget. It consisted of the rector, the vice rector, the pro rector (administration) and four board representatives. The pro rectors for undergraduate and postgraduate studies each presided over a chamber, which was responsible for curriculum and course changes. Each chamber consisted of nine directors. Professors were not members but could be called on for advice. Each faculty was administered by a director, appointed by the rector for renewable three year terms. Departments were administered by coordinators, chosen by the director for one year, renewable terms. They had no administrative power. The faculty council consisted of all departmental coordinators. There was no council at the departmental level (diagram 5).

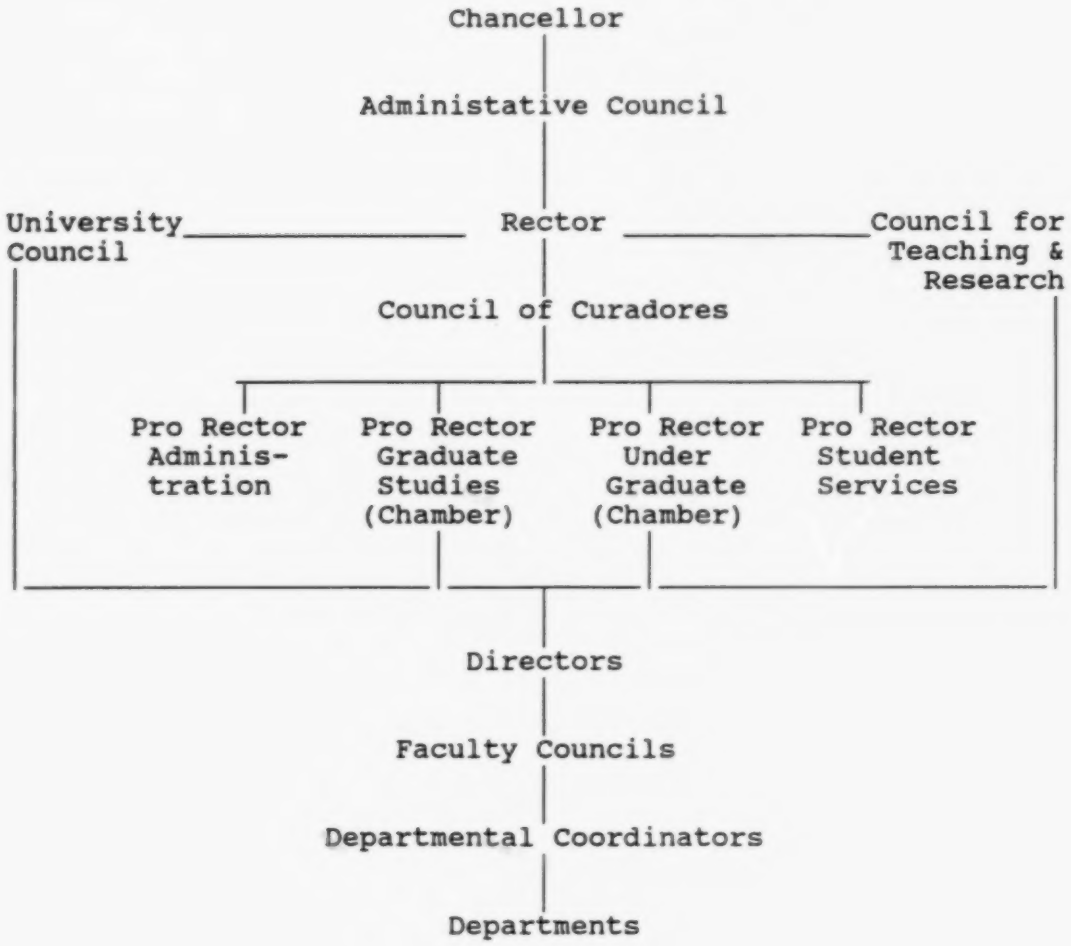
Power was centralized at two levels. First, within the faculty, power resided with the director, who was responsible for all administrative and academic decisions. The departmental level at PUCRS was very weak. Departments did not exist as financial units, there were no departmental committees, and the departments were administered by coordinators, who did not have any administrative power, and who were appointed by the director. There was no faculty representation, and only one student representative on the faculty council. The vast majority -- 94 per cent -- of the faculty were part time. The directors also made up the membership of the chambers, the Council for Teaching and Research and the University Council, where faculty representation was nonexistent. Thus, the structure created a system in which the directors were a pervasive influence at all levels of the university, and the influence of professors and departmental coordinators was highly circumscribed. In many respects, however, the influence of the directors was also controlled. The board, and not the University Council as in other universities, had ultimate authority over changes to the structure, the statutes, and programs. The directors had no financial autonomy. It was the Council of Curators that was responsible for all aspects of financial management -- salaries, fees, distribution of resources, change from part time to full time appointments, equipment expenditures, and scholarships for professors. Directors were obliged to spend their resources according to their detailed submissions.

Power was more centralized in this university than in the other institutions. As a result, the rector was a key player in decision making. He had to prepare a triennial plan at the beginning of each three year term. PUCRS's current goals were thus clearly defined. They included the following: increasing the number of teaching staff with graduate degrees; improving teaching, with the help of a new group that offers counselling in teaching, and an increased emphasis on audio-visual aids; undergraduate curriculum review; biotechnology; and computerization. This emphasis on formal planning was not encountered to the same extent at the other universities. It was bound up in a pattern of increased systematization, the development of formal controls and procedures, and planning techniques, in an attempt to improve efficiency. In recent years, this emphasis has increased at the instigation of the current rector. Meetings and courses were held to improve planning in the university. For example, many of the directors had attended a course called PROPLAN, administered by IBM, to introduce them to the ideas involved in academic planning. The rector and pro rectors had attended planning courses organized by Canadian and US organizations. There was a special secretariat to help the rector develop formal plans. In addition, many other facets of the university had been systematized. For example, a career plan has been developed. It determined precise procedures, based primarily on service, for promotion, and the quota of full and associate professors. Standardized budget submissions were introduced in the early 1980s.

The question that remains, however, is whether this style of planning and control makes sense in a university. In some senses the triennial plan was carried out, particularly in terms of the initiatives that revolved around physical facilities. In other respects, however, the university had been less successful. For example, the initiative to upgrade the professorial staff met with limited success. Despite offering salary increments to professors with graduate degree, and continuing to pay salaries to professors while they undertook graduate training, the percentage of total staff with a graduate degree actually fell between 1985 and 1987. The percentage among full time staff was constant. The problem has been that the majority of professors are part time -- they have other jobs from which it is often not possible to obtain the time off necessary to study. While central administrators constantly talked in the context of "plans", professors at the lower levels were so distanced that they they had no conception of any plans at all. The result was that the plans imposed from above were not being realized, for two reasons. First, because the people at the base of the university, who ultimately make academic strategy, had no idea of what was being asked for. Second, the people at the top knew what the plans were, but they had little idea of how to implement them. So, for example, the plan to increase the qualifications of professors will succeed, only if PUCRS increases the percentage of full time professors, which has fallen over the last two years. To do so, it must attract and motivate qualified professors, which probably means offering more autonomy and academic freedom. It also means that PUCRS must pay wages compatible with the federal university to which people leave.

Diagram 5.

PUCRS: Organizational Structure



University Configurations

This section examines the configurations of the five universities.

The Organized Anarchy

UFRGS represents the extreme form of professional bureaucracy commonly associated with the organized anarchy. Its structure was the most complex and least manageable. The complete separation of academic and administrative channels almost eradicated any realm of administrative fiat over academic decisions since they had to pass through several layers of committees. This committee structure also robbed individual professors of much of their ability to initiate major changes. Most academic decisions were a matter of collective choice. It was a highly confused and convoluted arena because of the competition between and separation of the two hierarchies. The prevalence of committees at all levels served to disperse power among a plethora of different groups. This organized anarchy led to the prevalence of the garbage can in academic strategy making. Goals were unclear and ambiguous; the means to attain them problematic; participation was highly fluid; and professionalism and client input prevalent.

It was, as a result, very difficult for any individual or interest group to mobilize sufficient power to effectively and consistently influence decision outcomes to any significant advantage. The only possible exception to this rule was the rector, who due to the authority of his position and his membership of key committees, might have been able to mobilize power resources to overcome the complexity of the decision making process and influence academic decisions. The current rector had, however, concentrated his efforts on physical, rather than academic, strategy.

Other models did not apply. It was difficult to conceive of UFRGS as a

political arena because, although political behaviour occurred around particular issues, it rarely led to anything; certainly not in a consistent or effective way. The absence of an integrated academic strategy or any coherent conception of one, and the competition between various groups precluded institutional collegiality. There was no evidence of the use of rational analysis and, while many bureaucratic structures existed, bureaucratic procedures were not used to take strategic decisions.

The Political Arena

UFBA, while also characterized by a complex committee structure, was closer to a political professional bureaucracy than a garbage can. It was due, partly, to a more streamlined structure. Decision making was somewhat more clearly defined, linear, and centralized. There was less faculty representation on the higher committees than at UFRGS. The academic and administrative channels were not separated, and the administrative hierarchy retained a lot of power because of the break in the academic channel between the curriculum committees and the Council for Teaching and Research. The rector also possessed more power than at UFRGS: he had complete control over all financial decisions; the pro-rectors were weaker due to their division into separate responsibilities and their advisory status; and major decisions were, largely, the concern of the University Council, since the Council for Teaching and Research was preoccupied with appeal processes.

While this centralization robbed the professional body of some of its participation in the formal decision making structure, it provided the opportunity for individual initiative since professors could appeal directly to the rector for funding and support. Professors also exercised power through their association, which represented a relatively active and visible

interest group, as did the student and staff associations, all of whom played an active role in the elections. In addition to the associations, a number of political parties were active on campus and, equally active but less visible, were the external political interests.

The rector had actively tried to manage this political arena with his move for direct elections, and had taken steps to juggle the interests of the competing groups. He employed a variety of political strategies in order to implement his plans. He took the initiative in setting the agenda and stole control from the associations; he set up the committee to decide the rules for the election; and used his votes on the University Council to ensure the proposals were passed. The basis of his actions during the election process was to avoid overt confrontation, particularly with the associations. The internal process of approving an electoral system was determined by the rector's successful use of power. The choice and eventual appointment of a successor brought the external politicians into the fray. This broader political arena proved more difficult to manage.

The Adhocracy

In its youth, Unicamp had been an example of a charismatic bureaucracy. Teaching and research was developed by individual professors and a large amount of professional judgement existed, but the decision making process was dominated by Zeferino Vaz. His vision was the creation of an innovative, research oriented institution and he thus laid the foundations of the adhocracy that was to survive him. He was a dictatorial figure, but there was little opposition because of his charismatic qualities and the fact that his vision was shared throughout the university community. The university evolved into an adhocracy after Zeferino's demise and the political problems

of the early eighties. The professors retained autonomy because they carried out the innovation. An ideology pervaded the university that emphasized risk taking, problem solving, and change. New faculties, departments, programs, research centres, were constantly being created. The functional hierarchy was overlaid by a program structure headed by the pro rectors. This dual authority matrix was then complemented by multidisciplinary teams in the form of the centres. Thus, Unicamp encouraged the creation of new pigeon holes to enable professors to exploit new developments, and the structure exhibited a high degree of change in order to accommodate innovation.

Unicamp was characterized by a combination of academic autonomy and centralized direction. While professors enjoyed considerable freedom to develop research initiatives and new programs, decision making was heavily influenced by the rector, more so than any other university except PUCRS. It was partly the result of Zeferino's tenure, but also an integral part of the adhocracy. Because of the constant innovation, changes had to be directed or channelled in some way; otherwise the university would overextend itself. Resources also had to be allocated to the various projects and this process remained largely under central control. The central administration took on the responsibility of setting priority areas, into which the university's resources were directed. The adhocracy would appear, therefore, to represent a delicate balance between centralized direction and decentralized action. Both administrative fiat and professional judgement were in evidence, but both were clearly shaped by the ideology.

The Missionary Organization

PUCRJ was a missionary professional bureaucracy. It was a highly decentralized university, in which decision making was collegial and

dominated, for the most part, by a concept of the common interest. There was, as a result, almost a complete absence of administrative fiat. When it had occurred, it had provoked a backlash from the professorial body. For example, when professors had been fired by a previous rector, new procedures were passed by the various committees to remove the power of the rector to fire professors without the approval of the two central councils. There was a shared mission in the organization, which had originated in the religious foundations of the university, but had since been secularized into a drive for excellence in research and teaching. Early success in science and technology acted as a model for professors in other areas.

PUCRJ was thus similar to Unicamp in that members of both universities adhered to a shared vision or goal. These visions were, however, very different. Unicamp was dedicated to innovation, to trial and error. PUCRJ, was dedicated towards perfecting programs within its pigeon holes. Change which cut across departments was much more difficult for PUCRJ. Consequently, the university dedicated its efforts towards professional innovation within the existing structure, while Unicamp engaged in entrepreneurial innovation by setting up new structures and pigeon holes.

The Machine Bureaucracy

PUCRS was more like a machine bureaucracy. Power was highly centralized in the hands of the rector. Directors did have some power by virtue of their membership of all the key committees, but they deferred to the rector on most matters. The professors had very little power. They were not members of the committee structure and, so, were excluded from the decision making process. The basis of authority was clearly traditional, grounded in the Marista origins. There was no shared mission, as in the case of PUCRJ;

nor had an ideology been created by the founder, as in the case of Unicamp. As a result, PUCRS could not rely on socialization or ideology as control mechanisms, but had to employ formal controls. Planning was a key ingredient of decisionmaking, and the university was geared towards efficiency.

Strategy Making

This section examines the nature of strategy making.

Disconnected Academic Strategy

The garbage can meant that academic strategy at UFRGS was not formulated and implemented by any one group. It was highly fragmented and disconnected. There was no concept of an academic strategy for the institution as a whole. There were, however, "islands" of excellence, such as physics and genetic engineering, which had been able to aquire resources, promote new programs and research areas, and forge a distinctive competence. These areas tended to owe their existence to individual professors who had been able to translate their own research abilities into research oriented departments, by attracting like-minded professors and encouraging faculty members to upgrade their research credentials. As they built up graduate teaching and research, they were able to acquire government funding, which increased their ability to reinforce research activities and provide additional flexibility.

A similar situation existed at UFBA. While the rector had more power than his counterpart at UFRGS and appeared more willing to use it, the system was still relatively unwieldy. Moreover, the rector had chosen to focus on the governance system, rather than try to influence academic strategy directly. The political arena and the power of the various interest groups made it difficult for the leadership to influence academic strategy. UFBA also had islands of excellence in the areas of regional studies, black

studies and, more recently, in new initiatives in chemical engineering.

Emergent Strategy

There was at PUCRJ, in contrast, a clearly articulated concept of academic strategy, which revolved around excellence in teaching and research, and a humanitarian education. This strategy was ideological and had developed by consensus. The central administration's role was to facilitate the achievement of this mission, rather than determine it. Thus, it was the cumulative efforts of the professors that led to the realization of the strategy. It was a highly emergent, incremental, bottom-up process that owed much to the training of the professors and their commitment to the mission.

In the past, the university's research focus had developed from the international education of the Jesuit priests, which introduced them to the research mentality, and exposed them to new ideas. The original development of the strength in physics and engineering emerged as the result of a decision by highly trained professors to buy a state of the art computer. The growth of this area was then inadvertently facilitated by the political situation, which provided a source of professors who were having difficulties in other institutions as a result of the military coup. The development of other areas can also be traced back to the strategies of individual Jesuit priests. The overseas experiences of these professors also led to the creation of a new structure in 1967. The history of PUCRJ was typical of the professional bureaucracy: the aggregate of many professorial decisions.

Umbrellas and Ideology

Unicamp was also propelled by an ideological commitment to excellence and, equally importantly, innovation. Its strategy of relating research to wider societal needs was well engrained throughout the organization. In this

case, however, the stage had been set by the entrepreneurial strategy of Zeferino, who had shaped strategy in the early years. Later administrators continued to influence strategic developments, using umbrella strategy. Specific objectives and priority areas defined by the central administration, in consultation with the academic community. These targets represented the broad parameters towards which the central administration channelled resources. It was left to individuals and groups of professors to enact the details of strategy. Unicamp thus contained the contradictions of central direction and academic freedom; its strategies were characterized by, on the one hand, ideology and consensus and, on the other, intention and plans.

Planned and Unrealized Strategy

PUCRS's academic strategy was the most planned and, in some cases, the least realized. There were clearly defined goals, such as the increase in the number of professors with graduate degrees; computerization; an emphasis on biotechnology. The rector had more success in implementing the more physical aspects of these strategies -- channelling resources into computer facilities, or organizing equipment and contracts in order to take advantage of developments in biotechnology. Academic initiatives tended to encounter problems. The intended strategy of upgrading the academic profile of the university had not been realized with any measurable success. Targets had been issued by the rector but had failed to materialize. PUCRS's configuration prevented the rector from carrying out his plans -- it was oriented towards efficiency, not excellence; it controlled; it paid less well that its sister institution; it was perceived to be dogmatic. So while, opportunities existed at other institutions in the area, most professors would prefer to work elsewhere or, at best, only part time for PUCRS.

It is clear from this analysis that academic strategy in most of these institutions had little to do with the strategy making activities on the part of the leadership. Only at Unicamp did the central administration consciously and effectively form academic strategy. Even here, while academic strategy was deliberate in the broad sense, it was emergent in how it manifested itself. At PUCRS, the leadership tried to form academic strategy, but often failed. At PUCRJ, the leadership focussed on academic strategy -- by not interfering with the efforts of the professors to operationalize the university's strategy. The rectors at the two federal universities had not even attempted to influence academic strategy -- they had chosen two other focal points: a physical strategy at UFRGS and a governance strategy at UFBA.

Leadership Style and Strategy

The rector at UFRGS effectively sidestepped the garbage can to focus on what has been termed a physical strategy. He has been called an architect, not only because of his focus on buildings, but because he implemented -- or constructed -- a new strategy. He selected an area where he had a high degree of control and created a simple structure with his initial "disorganizing" activities, which broke up the existing territories, and his direct involvement in decision making.

The rector at UFBA was put in the role of juggler, since he had secure the support of the interest groups inside the university for his electoral plans. He did so by drawing them into discussions and raising issues before they had chance to take the initiative. In this way, he was able to avoid overt conflict (Hardy, 1985). This proactive management of the internal political arena enabled him to implement the electoral process he wanted, but

his juggling proved less adept in the broader arena.

Various rectors at Unicamp have played the role of catalyst. In effect, Zeferino was the greatest catalyst of them all. He set up a new university, in a period of military rule, attracted people from all over the world, and gave them the impetus to set the new university in motion. He combined the talents of central direction and effective delegation. More recent rectors have also played the role of catalyst and, in so doing, have formulated strategic priorities, the details of which others have carried out.

The rector at PUCRJ was primarily a caretaker and the symbolic link with the Jesuit community. The university was, in many respects, self sufficient, guided by its mission. The aim of the leadership at PUCRJ was to promote and protect the values on which the institution was based and facilitate the role of the professors in carrying out the mission.

PUCRS's rector was primarily a planner. The entire university was directed towards planning and efficiency. Every three year term was marked by a planning document. In the past, most of these plans revolved around physical goals; more recently, the rector had expressed a desire to improve the academic profile of the university. These plans had, however, proven more difficult to realize.

Summary and Conclusions

This paper has examined the universities' configurations, and shown their implications for strategy making and leadership style (table 3).

UFGRS was an organized anarchy in which decision making was heavily influenced by the garbage can. It was characterized by dispersed power, ambiguous goals, disinterest, a lack of effective means of control, ineffectual political activity. Academic strategy was disconnected and the

Table 3.

University Configurations

	UFRGS	UFBA	UNICAMP	PUCRJ	PUCRS
power	widely dispersed	interest groups	experts & centre	professors	centre
goals	ambiguous	political	innovation	excellence	efficiency
means	ambiguous	self interest	problem solving	common interest	control
control	none	use of power	ideology & budgets	ideology	traditional authority
change	by default	from use of power	from experts & centre	from professors	from centre
politics	yes, usually ineffective	yes	some, around change	some, around change	no power to resist
config-uration	**organized anarchy**	**political arena**	**adhocracy**	**missionary**	**machine bureaucracy**
academic strategy	disconn-ected	disconn-ected	ideological consensus umbrella	ideological consensus	planned unrealized
strategic focus of leadership	physical strategy	governance strategy	academic strategy	academic strategy	academic & physical strategy
nature of focal strategy	deliberate emergent incremental	deliberate	deliberate emergent	emergent incremental	intended unrealized
type of strategy used by leadership	entre-preneurial umbrella	planned process consensus (imposed)	see academic	see academic	planned (unrealized)
role of rector	architect	politician	catalyst	caretaker	planner

focus of the leader was on physical strategy, which was both deliberate and emergent as a result of entrepreneurial and umbrella strategies. The rector was an architect who sidestepped the academic garbage can to create a simple structure around the cultural centre.

UFBA was a political arena in which political goals and self interest evoked the use of power on the part of competing interest groups. Academic strategy was disconnected and the leadership had focussed on a highly deliberate, planned governance strategy. The rector also used process and consensus strategy. The final result was imposed by external politicians.

Unicamp had evolved from a charismatic bureaucracy into an adhocracy. Power was relatively centralized, especially resource allocation, although considerable academic freedom existed. Goals and criteria revolved around innovation and problem solving; control was exercised through resource allocation and by the ideology. The focus was on academic issues, which were characterized by ideological, consensus, and umbrella strategies. Rectors acted as catalysts.

PUCRJ was a missionary professional bureaucracy. Power lay with the professors who were committed to excellence and guided by a sense of the common interest. Control occurred through this ideology, and change was initiated, primarily, by the professors. The focus was on academic strategy which was emergent and incremental as a result of ideology and consensus. The rector was primarily a caretaker.

PUCRS was a machine bureaucracy in which power was highly centralized. Goals revolved around efficiency and control. The means of control came from traditional authority. Change came from the centre and professors had little power to resist. The rector's focus was on both academic and physical

strategy, both of which were deliberate and planned, but often unrealized in the case of the latter. The rector acted as a planner.

There are, clearly, different types of university (Chaffee & Tierney, 1988; Hardy, 1988). This study provides support for a number of different configurations, according to which the nature of academic strategy making varied. The array of models typically applied to universities has thus been broadened and a link between context and strategy established. The study also raises questions about the role of university leaders. Only in the adhocracy and charismatic bureaucracy did leaders have a direct and positive effect on academic strategy. The machine bureaucracy erred on the side of too many plans; without providing the means of achieving them. The various professional bureaucracies relied on the professoriate to determine academic strategy. In the missionary form, this situation worked well since the entire community was working towards the same goals. In the garbage can and political institutions, it led to a fragmented academic strategy.

Should senior administrators be trying to influence academic strategy? In the case of a missionary professional bureaucracy, the answer would seem to be: no. Things work well enough without intervention and administrators should leave well alone (see Birnbaum's (1988) cybernetic leader). Central direction will, however, be an integral part of the charismatic bureaucracy. It may also be necessary in an adhocracy, in order to channel effective change. It will, however, rely on the ability to combine it with academic autonomy, and the creative use of ideological, umbrella and consensus strategies; rather than planned strategy. If the garbage can or political arena prevail, the situation is more difficult -- turning them into the missionary organization is not easy. Administrators may be able to mitigate

the effects of the garbage can and, perhaps, the political arena by changing the governance structure. Such changes will require political and consensus building skills, in order to incorporate the university community into the move for change.

Administrators may focus on elements other than academic strategy. Academic strategy corresponds to the outputs of the university -- research and teaching -- and the inputs -- staff and students. Physical strategy relates to the various support components, on which the university relies in order to get its work done -- physical facilities, fund raising, and support staff. They are usually centralized functions in any event, and are more amenable to central intervention. A third area concerns the governance of the university which can facilitate the work of the university or, in some cases, impede it.

NOTES

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